

**SUBJECT: Group U Occupancies, Aboveground Tanks**

**EFFECTIVE DATE:** November 2003 **REVISED:** July 2004

**INTERPRETATION NUMBER:** ADM – 1.0312.1.3

**SEE ALSO:** 2003 IBC – Section 312, BL – 67

### **INTERPRETATION SUMMARY**

IBC Section 312 establishes an occupancy classification U for tanks and towers. The question this interpretation will speak to is what is a tank, when is a permit required, and what are the requirements. First of all, since fences and towers are aboveground structures the implication is that the building code will govern aboveground tanks and not below ground tanks. The next question is what storage capacity defines a tank? The International Fire Code defines any vessel capable of holding 60 gallons or less as a container. A vessel capable of holding more than 60 gallons and designed primarily to be loaded into or on or temporarily attached to a transport vehicle or ship and equipped with skids, mounting or accessories to facilitate handling of the tank by mechanical means is a *portable* tank. Any other vessel capable of holding more than 60 gallons is defined as a permanent tank. Therefore, it is our interpretation that a permit would be required for any vessel capable of holding more than 60 gallons that is not portable. A skid-mounted vessel would still be considered a permanent tank for the purpose of permit requirements and code review, as it does not meet the other conditions listed under portable tanks. It is our interpretation that a permit would be required whether these structures are located out of doors or indoors. Although not subject to any wind or snow loads indoors, we would still want to review the tank based on the proposed storage to determine any separation or containment requirements for flammable or hazardous liquids or gases. If the tank will be used to store other than these types of materials, the permit is mostly administrative, unless the tank is not listed, in which case it would have to be designed by a licensed engineer. Propane tanks will be subject to these same requirements. The IBC does provide an exception for permits for water tanks supported directly on grade with a capacity of less than 5000 gallons and having a ratio of height to width or diameter not exceeding 2:1.

All tanks are required to be supported on approved foundations or supports and to be adequately anchored for uplift for water, if located in a flood fringe, and wind. All unlisted tanks must be designed by an engineer, and if assembled on site, the engineer must be licensed by the State of Kansas. Foundations, and anchorage for tanks larger than 660 gallons must be designed by an engineer licensed by the state of Kansas. Unless integral to a listed tank, or manufactured as an assembly, supports for tanks larger than 660 gallons must be designed by an engineer licensed by the state of Kansas.

Zoning certifications are required for these structures as well. In most cases these structures are accessory to a primary use building. The Fire Code limits the size of portable tanks to 660 gallons. Even though typically these vessels will not meet the

definition of portable tank, for the purpose of zoning review, it is Staff's interpretation that tank capacities of 660 gallons or less will be defined as an accessory structure and must meet the prescribed setbacks for accessory structures. In some cases the zoning setbacks may be greater than the Fire Code setbacks. In addition, placement of these smaller tanks in easements will be permitted.